WHAT IS CLAIMED IS:

1.   A method of tuning an inspection system, the method comprising the steps of:

a.   sensing characteristics of an inspection piece using the inspection system,

b.   analyzing the sensed characteristics to identify anomalies having location information and level information,

c.   analyzing the level information of the anomalies with an initial set of thresholds of inspection system parameters,

d.   flagging as defects an initial portion of the anomalies based on the analysis of the level information in step c,

e.   displaying a summary of the flagged anomalies,

f.   displaying an operating curve of potential flagged defects versus threshold for at least one of the inspection system parameters,

g.   selectively changing the at least one of the inspection system parameters to form a modified set of thresholds of the inspection system parameters,

h.   analyzing the level information of the anomalies with the modified set of thresholds of the inspection system parameters,

i.   flagging as defects an updated portion of the anomalies based on the analysis of the level information in step h,

j.   displaying a summary of the flagged anomalies and recomputed operating curves,

k.   selectively repeating steps g through j, and

l.   storing the modified set of thresholds of the inspection system parameters for use in an inspection system recipe.

2.   The method of claim 1, wherein the inspection system is an optical inspection system.

3.   The method of claim 1, wherein the inspection piece is a semiconducting wafer.

4.   The method of claim 1, wherein the characteristics of the inspection piece are surface defects.

5. The method of claim 1, further comprising the step of selectively displaying a spatial representation of the flagged anomalies on the inspection piece.

6. A method of tuning a recipe for an inspection system, the method comprising the steps of:

    a. receiving level information for sensed anomalies,

    b. analyzing the level information of the anomalies with an initial set of thresholds of inspection system parameters,

    c. flagging as defects an initial portion of the anomalies based on the analysis of the level information in step b,

    d. displaying a summary of the flagged anomalies,

    e. displaying an operating curve of potential flagged defects versus threshold for at least one of the inspection system parameters,

    f. selectively changing the at least one of the inspection system parameters to form a modified set of thresholds of the inspection system parameters,

    g. analyzing the level information of the anomalies with the modified set of thresholds of the inspection system parameters,

    h. flagging as defects an updated portion of the anomalies based on the analysis of the level information in step g,

    i. displaying a summary of the flagged anomalies and recomputed operating curves,

    j. selectively repeating steps f through i, and

    k. storing the modified set of thresholds of the inspection system parameters for use in an inspection system recipe.

7. The method of claim 6, wherein the anomalies represent surface defects on an inspection piece.

8. The method of claim 6, further comprising the step of selectively displaying a spatial representation of the flagged anomalies.

9. An inspection system comprising:

sensors adapted to sense characteristics of an inspection piece,

a processor adapted to:

analyze the sensed characteristics to identify anomalies having location information and level information,

analyze the level information of the anomalies with an initial set of thresholds of inspection system parameters, and

flag as defects an initial portion of the anomalies based on the analysis of the level information in step c,

a display adapted to:

display a summary of the flagged anomalies, and

display an operating curve of potential flagged defects versus threshold for at least one of the inspection system parameters,

an input adapted to selectively change the at least one of the inspection system parameters to form a modified set of thresholds of the inspection system parameters,

the processor further adapted to:

analyze the level information of the anomalies with the modified set of thresholds of the inspection system parameters, and

flag as defects an updated portion of the anomalies based on the immediately preceding analysis of the level information,

the display further adapted to display an updated summary of the flagged anomalies and recomputed operating curves, and

a memory adapted to store the modified set of thresholds of the inspection system parameters for use in an inspection system recipe.

10. The inspection system of claim 9, wherein the inspection system is an optical inspection system.

11. The inspection system of claim 9, wherein the inspection piece is a semiconducting wafer.

12.   The inspection system of claim 9, wherein the characteristics of the inspection piece are surface defects.

13.   The inspection system of claim 9, wherein the display is further adapted to selectively display a spatial representation of the flagged anomalies on the inspection piece.